

4 electricity power signal to pass from the network to a consumer's
5 premises and for input and/or removal of a telecommunication
6 signal from the network, said communications apparatus
7 comprising:

8 a main inductor arranged between a mains electricity input
9 from said network and a mains electricity output to said
10 consumer's premises to allow the low frequency high amplitude
11 mains electricity power signal to pass through the main inductor
12 in a low impedance path from the mains electricity input from
13 said network to said mains electricity output to said consumer's
14 premises for frequencies from zero frequency to a low frequency
15 of said low frequency high amplitude mains electricity power
16 signal; and

17 a coupling capacitor connected between said mains
18 electricity input and a signal input/output line to allow the
19 telecommunication signal to pass through the coupling capacitor
20 in a path between said mains electricity input and the signal
21 input/output line and to attenuate low frequency components of
22 said low frequency high amplitude mains electricity power signal.

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2 11. (Amended) The communications apparatus as claimed in
3 claim 9, further comprising a shunt capacitor connected between
4 ground and said mains electricity output for shunting to ground
 any of the telecommunication signal having passed to said mains

5 electricity output.

1 14. (Amended) Communications apparatus for use with an
2 electricity distribution and/or power transmission network for
3 allowing, in use, a low frequency high amplitude mains
4 electricity power signal to pass from the network to a consumer's
5 premises and for input and/or removal of a telecommunication
6 signal from the network, said communications apparatus
7 comprising:
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9 a first inductor arranged between a mains electricity input
10 from said network and a mains electricity output to said
11 consumer's premises to allow the low frequency high amplitude
12 mains electricity power signal to pass through the first inductor
13 in a low impedance path from the mains electricity input from
14 said network to said mains electricity output to said consumer's
15 premises for frequencies from zero frequency to a low frequency
16 of said low frequency high amplitude mains electricity power
17 signal;

18 a series combination of a coupling capacitor and a fuse
19 connected between said mains electricity input and a signal
20 input/output line to allow the telecommunication signal to pass
21 through the coupling capacitor and the fuse in a path between
22 said mains electricity input and the signal input/output line and
23 to attenuate low frequency components of said low frequency high

23 amplitude mains electricity power signal; and
24 a second inductor connected between said signal
25 input/output line and ground, said second inductor providing a
26 current path for blowing said fuse when said coupling capacitor
27 suffers a fault condition.

1 15. (Amended) The communications apparatus as claimed in
2 claim 24, further comprising a shunt capacitor connected between
3 ground and said mains electricity output for shunting to ground
4 any of the telecommunication signal having passed to said mains
5 electricity output.

1 16. (Amended) Communications apparatus for use with an
2 electricity distribution and/or power transmission network for
3 allowing, in use, a low frequency high amplitude mains
4 electricity power signal to pass from the network to a consumer's
5 premises and for input and/or removal of a telecommunication
6 signal from the network, said communications apparatus
7 comprising:

8 a first inductor arranged between a mains electricity input
9 from said network and a mains electricity output to said
10 consumer's premises to allow the low frequency high amplitude
11 mains electricity power signal to pass through the first inductor
12 in a low impedance path from the mains electricity input from

13 said network to said mains electricity output to said consumer's
14 premises for frequencies from zero frequency to a low frequency
15 of said low frequency high amplitude mains electricity power
16 signal;

17 a series combination of a coupling capacitor and a fuse
18 connected between said mains electricity input and a signal
19 input/output line to allow the telecommunication signal to pass
20 through the coupling capacitor and the fuse in a path between
21 said mains electricity input and the signal input/output line and
22 to attenuate low frequency components of said low frequency high
23 amplitude mains electricity power signal;

24 a second inductor connected between said signal
25 input/output line and ground, said second inductor providing a
26 current path for blowing said fuse when said coupling capacitor
27 suffers a fault condition; and a series combination of a first
28 fuse and a first shunt capacitor connected between ground and
29 said mains electricity output;

30 wherein said first inductor includes a conductor wrapped
31 around at least one ferrite core; and

32 further including a second shunt capacitor and a second fuse
33 connected between ground and an intermediate point of said
34 conductor.

Please add the following new claims 20 to 28:

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1 -- 20. The communications apparatus as claimed in claim 9,
2 wherein the main inductor has an impedance for substantially
3 preventing communications signals of at least one megahertz from
4 passing from the mains electricity input from said network to
5 said mains electricity output to said consumer's premises.

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1 21. The communications apparatus as claimed in claim 9,
2 wherein the main inductor has an inductance of at least about 10
3 microhenries.

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1 22. The communications apparatus as claimed in claim 9,
2 wherein the main inductor has an impedance such that no more than
3 about one volt of voltage is produced across the main inductor
4 when conducting one hundred amperes of current of the low
5 frequency high amplitude mains electricity power signal.

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1 23. The communications apparatus as claimed in claim 14,
2 wherein the main inductor has an impedance for substantially
3 preventing communications signals of at least one megahertz from
4 passing from the mains electricity input from said network to
5 said mains electricity output to said consumer's premises.

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1 24. The communications apparatus as claimed in claim 14,
2 wherein the main inductor has an inductance of at least about 10

3 microhenries.

1 25. The communications apparatus as claimed in claim 14,
2 wherein the main inductor has an impedance such that no more than
3 about one volt of voltage is produced across the main inductor
4 when conducting one hundred amperes of current of the low
5 frequency high amplitude mains electricity power signal.

1 *Sub D3* 26. The communications apparatus as claimed in claim 18,
2 wherein the main inductor has an impedance for substantially
3 preventing communications signals of at least one megahertz from
4 passing from the mains electricity input from said network to
5 said mains electricity output to said consumer's premises.

1 27. The communications apparatus as claimed in claim 18,
2 wherein the main inductor has an inductance of at least about 10
3 microhenries.

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28. The communications apparatus as claimed in claim 18,
1 wherein the main inductor has an impedance such that no more than
2 about one volt of voltage is produced across the main inductor
3 while conducting one hundred amperes of current of the low
4 frequency high amplitude mains electricity power signal. --

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